

**EXHIBIT 3**

**Redacted Version of  
Document Sought to be  
Sealed**

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IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF CALIFORNIA  
SAN JOSE DIVISION

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CHASOM BROWN, et al., )  
on behalf of themselves and )  
all others similarly )  
situated, )

Plaintiffs, ) Case No.

) 5:20-cv-03664-LHK

vs. )

GOOGLE LLC, )

Defendant. )

-----)

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Videotaped Zoom Deposition of

DR. CAITLIN SADOWSKI

CONFIDENTIAL

Thursday, March 10, 2022

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Katy E. Schmidt  
RPR, RMR, CRR, CSR 13096  
Veritext Job No.: 5130524

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1 MR. MCGEE: Actually, I'd like to go off the 03:56  
2 record right now. 03:56  
3 MR. ANSORGE: Okay. Let's go off the record. 03:56  
4 THE VIDEOGRAPHER: We're now going off the 03:56  
5 record. The time is 3:56 p.m. 03:56  
6 (Break taken in proceedings.) 03:56  
7 THE VIDEOGRAPHER: We are now back on the 04:15  
8 record. The time is 4:15 p.m. 04:15  
9 (Plaintiffs' Exhibit 2 was 04:15  
10 marked for identification.) 04:15  
11 BY MR. MCGEE: 04:15  
12 Q. Dr. Sadowski, when we went off the record, we 04:15  
13 were provided what I've marked as Exhibit 2. 04:15  
14 Is that the document that you referenced was 04:15  
15 the fax sheet? 04:15  
16 A. I should look at the drive folder and see. 04:15  
17 Okay. I see something called Exhibit 2. I am 04:16  
18 opening it now. 04:16  
19 Q. Great. Thank you. 04:16  
20 A. Yes. This document is what I had referred to 04:16  
21 as, I believe, reference sheet. 04:16  
22 Q. Okay. And the third line it says "No fields 04:16  
23 named" and in bold "[REDACTED] or 04:16  
24 [REDACTED]." 04:16  
25 What is that reference, the "No fields named"? 04:16

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1 What does that mean? 04:16

2 A. I mentioned I use our internal code search 04:16

3 tool to look up these two field names, and they did not 04:16

4 appear. 04:16

5 Q. Okay. So it's your testimony that with the 04:16

6 internal code search tool, the [REDACTED] 04:16

7 [REDACTED] search term did not return any 04:17

8 results? 04:17

9 A. Yes. When I looked at -- when I did a search 04:17

10 for [REDACTED] across 04:17

11 Google's multibillion line repository that I have access 04:17

12 to internally, I did not get any search results. 04:17

13 Q. Do you know what data sources that tool 04:17

14 searches over? 04:17

15 MR. ANSORGE: Objection. Vague and out of 04:17

16 scope. 04:17

17 BY MR. MCGEE: 04:17

18 Q. You can answer. 04:17

19 A. The code search tool searches over a 04:17

20 multibillion line code base. That's the main code base 04:17

21 that is used at Google. 04:17

22 Q. Okay. Let me ask it this way: 04:18

23 Are there any data sources that would not be 04:18

24 searched by that tool? 04:18

25 MR. ANSORGE: Objection. Vague. 04:18

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1 THE WITNESS: There are millions or billions 04:18  
2 of data sources in the world. Many of them would not be 04:18  
3 searched via that tool. 04:18  
4 BY MR. MCGEE: 04:18  
5 Q. Okay. Let me ask it this way: 04:18  
6 Within Google, are there any data sources that 04:18  
7 that tool would not search? 04:18  
8 MR. ANSORGE: Objection. Vague, and out of 04:18  
9 the scope. 04:18  
10 THE WITNESS: Yes. 04:18  
11 BY MR. MCGEE: 04:18  
12 Q. What sources are those? 04:18  
13 A. There are many. One example is the chromium 04:18  
14 open source repository, which any -- anyone externally 04:18  
15 can also search over. 04:19  
16 Q. Okay. What other sources would it not search 04:19  
17 within Google? 04:19  
18 MR. ANSORGE: Same objection. 04:19  
19 THE WITNESS: My e-mail. 04:19  
20 BY MR. MCGEE: 04:19  
21 Q. Okay. 04:19  
22 A. As an example. 04:19  
23 Q. What other data sources? 04:19  
24 A. The -- 04:19  
25 MR. ANSORGE: Same objection. 04:19

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1 THE WITNESS: -- e-mail of -- oh -- other 04:19  
2 e-mails. 04:19  
3 BY MR. MCGEE: 04:19  
4 Q. What other data source would it not search 04:19  
5 over? 04:19  
6 A. Documents in a drive folder. 04:19  
7 Q. Would it search all log files? 04:19  
8 MR. ANSORGE: Objection. Vague, and out of 04:19  
9 scope. 04:20  
10 THE WITNESS: Code search does not search over 04:20  
11 log files. Code search searches over source code. 04:20  
12 BY MR. MCGEE: 04:20  
13 Q. Okay. Would it search over proto files? 04:20  
14 MR. ANSORGE: Objection. Vague. 04:20  
15 THE WITNESS: It would search over proto 04:20  
16 definitions. 04:20  
17 BY MR. MCGEE: 04:20  
18 Q. Would it search all available proto 04:20  
19 definitions or is it a subset? 04:20  
20 MR. ANSORGE: Objection. Calls -- objection. 04:20  
21 Calls for speculation and out of scope. 04:20  
22 THE WITNESS: It would search over all 04:20  
23 proto definitions in Google's main repository. 04:20  
24 BY MR. MCGEE: 04:20  
25 Q. Okay. Let me ask it this way: 04:20

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1           If there was a field in a log file that had           04:21  
2           [REDACTED] but that same           04:21  
3           [REDACTED] did not have           04:21  
4           a field or a proto definition, would your internal code           04:21  
5           search tool return results for that search term?           04:21  
6           MR. ANSORGE: Objection. Form, and incomplete           04:21  
7           hypothetical.           04:21  
8           THE WITNESS: I could create a proto field on           04:21  
9           my local machine with any field names that I want, and           04:21  
10          create a proto -- a proto file for testing with some           04:21  
11          kind of -- or on the machine that I do work -- work at.           04:21  
12          So you could create a specific proto with an arbitrary           04:21  
13          name and log that specific proto.           04:22  
14          BY MR. MCGEE:           04:22  
15          Q. Okay. Let me ask you this:           04:22  
16          Are all proto fields -- do they all have           04:22  
17          descriptions at Google?           04:22  
18          MR. ANSORGE: Objection. Vague and           04:22  
19          foundation, and out of the scope.           04:22  
20          THE WITNESS: I have not seen all proto fields           04:22  
21          at Google.           04:22  
22          BY MR. MCGEE:           04:22  
23          Q. All right. Are there proto fields that you've           04:22  
24          seen at Google that did not have descriptions?           04:22  
25          A. Yes. But it also depends on what you mean by           04:22

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1 description. I am assuming that you are referring to a 04:22  
2 code comment directly above the name of the field. I 04:23  
3 have seen proto fields at Google that do not have a code 04:23  
4 comment directly above the name of the field. 04:23

5 Q. Okay. 04:23

6 A. Typically in those cases the name of the field 04:23  
7 is descriptive. 04:23

8 Q. So if [REDACTED] 04:23  
9 [REDACTED] did not have what you just described, would it 04:23  
10 still -- would your internal code search tool return any 04:23  
11 results for it? 04:23

12 MR. ANSORGE: Objection. Form, and calls for 04:23  
13 speculation, and out of scope. 04:23

14 THE WITNESS: If there was a proto field in 04:23  
15 the main Google repository that had a particular name, 04:23  
16 that field would be returned when searching for it, 04:23  
17 regardless of whether there was a comment in the code 04:23  
18 next to the field. 04:24

19 BY MR. MCGEE: 04:24

20 Q. Okay. Let me ask it more on a broad level. 04:24

21 Your search for the [REDACTED] 04:24  
22 [REDACTED] with the internal code search tool, 04:24  
23 you said it did not return any results. 04:24

24 Is that correct? 04:24

25 A. That is correct. 04:24



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1 Q. Are there any other ways that you could search 04:24  
2 to see if the [REDACTED] 04:24  
3 search term exists within any -- exists at Google? 04:24

4 So just to give you an example, I understand 04:24  
5 that you're saying that the internal code search tool is 04:24  
6 limited in what it can return because of the limitations 04:24  
7 that you just described. 04:24

8 Are there other ways to search for that [REDACTED] 04:24  
9 [REDACTED] at Google? 04:25

10 MR. ANSORGE: Objection. Form. Compound. 04:25  
11 And out of the scope. 04:25

12 THE WITNESS: I could -- there are always ways 04:25  
13 to search for something. I could, for example, navigate 04:25  
14 to a doc in my drive folder and search over that doc. 04:25  
15 I could use public Google search and search for that 04:25  
16 term -- for that string rather, just, you know, not 04:25  
17 anything that's Google internal but something that's 04:25  
18 visible equally outside of Google. 04:25

19 As I mentioned, there are other repositories, 04:25  
20 like the chromium open source repository. There could 04:25  
21 be other code or documents at Google that I do not have 04:25  
22 access to. Over the main multibillion line repository, 04:25  
23 I did not see a field with that name. 04:26

24 BY MR. MCGEE: 04:26

25 Q. Okay. For -- okay. What dashboards are 04:26

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1 going to belabor the questions. They're the same. I 05:49  
2 won't even ask them to you. 05:49  
3 So if you can turn to Exhibit 14, please. 05:49  
4 A. I still see 12 as the top one so... 05:49  
5 Q. Oh, okay. 05:49  
6 A. Just a minute. I'm reloading. 05:49  
7 Q. Yeah. No problem. 05:49  
8 A. Okay. I see something called Exhibit 14. I'm 05:50  
9 opening it. 05:50  
10 I see what appears to be a shorts design 05:50  
11 document that starts with [REDACTED] 05:50  
12 [REDACTED] 05:50  
13 Q. Have you ever seen this design document 05:50  
14 before? 05:50  
15 A. Yes. 05:50  
16 Q. When? 05:50  
17 A. In preparation for this deposition. 05:50  
18 Q. Did you speak with anybody in preparation for 05:50  
19 this deposition about this design document? 05:50  
20 A. Yes. 05:50  
21 Q. Who, aside from your lawyers? 05:50  
22 A. Quentin Fiard. 05:50  
23 Q. And what department is Quentin Fiard with in 05:50  
24 Google? 05:51  
25 A. I don't remember what he works on right now, 05:51

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1 but he used to work on [REDACTED] in -- on [REDACTED] at the 05:51  
2 time this document was produced. 05:51

3 Q. Okay. And why did you choose to speak with 05:51  
4 Quentin Fiard about this document? 05:51

5 A. From the comment threads in the document, it's 05:51  
6 clear that he is the person who is most knowledgeable 05:51  
7 about the document. 05:51

8 Q. Okay. Did you speak with anyone else whose 05:51  
9 identity is reflected in this document? 05:51

10 MR. ANSORGE: Objection. Form, and vague. 05:51

11 THE WITNESS: In the comments I see a 05:51  
12 selection of four different user names. 05:51

13 Are you asking about that set of four user 05:52  
14 names? 05:52

15 MR. MCGEE: Yes. 05:52

16 THE WITNESS: Quentin Fiard I spoke to in 05:52  
17 preparation for this deposition, and not previously. 05:52

18 The only other user name that I recognize is 05:52  
19 msramek. 05:52

20 BY MR. MCGEE:

21 Q. And who is that? 05:52

22 A. He has Chrome's privacy working group. We 05:52  
23 have a close relationship because we take user privacy 05:52  
24 very seriously, and we talk to the privacy working group 05:52  
25 whenever there is anything that comes up related to 05:52

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1 privacy that we have questions about and to ensure that 05:52  
2 we are upholding all the privacy policies that Google as 05:52  
3 a company supports and that we want to be supporting as 05:52  
4 a team. 05:53  
5 Q. And what is that person's name? 05:53  
6 A. Martin Sramek. 05:53  
7 Q. Do you know how to spell Martin's last name? 05:53  
8 A. I believe it is S-r-a-m-e-k. The same as in 05:53  
9 this user name. 05:53  
10 Q. Okay. And what is this design document? What 05:53  
11 is it talking about? 05:53  
12 MR. ANSORGE: Objection. Vague, and form. 05:53  
13 THE WITNESS: Reading from the design 05:53  
14 document: 05:53  
15 [REDACTED] 05:53  
16 [REDACTED] 05:53  
17 [REDACTED] [REDACTED] 05:53  
18 [REDACTED] 05:53  
19 [REDACTED] 05:53  
20 [REDACTED] 05:53  
21 Do you -- would you like me to keep reading? 05:54  
22 MR. MCGEE: I thank you for pausing. I would 05:54  
23 not like you to keep reading. 05:54  
24 BY MR. MCGEE: 05:54  
25 Q. Does this design document relate to any 05:54

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1 particular bit? 05:54

2 Well, let me back that up. 05:54

3 Are you familiar with something within Google 05:54

4 being described as a bit or a field? 05:54

5 MR. ANSORGE: Objection. Vague and compound. 05:54

6 THE WITNESS: Many things within Google are 05:54

7 described as a bit or a field, either colloquially or 05:54

8 exactly. At some level ultimately your computer is just 05:54

9 a sequence of bits. 05:54

10 MR. MCGEE: Right. Ones and zeros. 05:54

11 BY MR. MCGEE: 05:54

12 Q. But a field in a log, are you familiar with 05:54

13 that description or colloquialism at Google? 05:54

14 MR. ANSORGE: Objection. Vague, and out of 05:55

15 scope. 05:55

16 THE WITNESS: Yes. 05:55

17 BY MR. MCGEE: 05:55

18 Q. And does this design document relate to any 05:55

19 field or fields at Google? 05:55

20 A. Yes. 05:55

21 Q. Which? 05:55

22 A. I'm reading from my reference sheet to make 05:55

23 sure I get it right. 05:55

24 This design document is related to the 05:55

25 [REDACTED] 05:55

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1 [REDACTED] mode. 05:55

2 Q. And how do you know that? 05:55

3 A. Because the source code for that particular 05:56

4 field, as you say, has a link to this design document 05:56

5 and says that it is -- annotation that it is 05:56

6 specifically limited to [REDACTED] logs. 05:56

7 Q. And what is an [REDACTED] log? 05:56

8 A. [REDACTED], is my 05:56

9 understanding. 05:56

10 Q. And are they keyed by any particular 05:56

11 identifiers? 05:56

12 MR. ANSORGE: Objection. Vague, and out of 05:56

13 the scope. 05:56

14 BY MR. MCGEE: 05:56

15 Q. You can answer. 05:56

16 A. There is a -- looking at my reference sheet, 05:57

17 there is a set of [REDACTED] logs that is not GAIA keyed 05:57

18 and there are some [REDACTED] logs that are [REDACTED] 05:57

19 [REDACTED]. 05:57

20 Q. Okay. And I see that from your reference 05:57

21 sheet. 05:57

22 When you say that the [REDACTED] 05:57

23 [REDACTED] is non-GAIA keyed, 05:57

24 what does that mean? How would you explain that? 05:57

25 A. Sorry. There was a beep when you were talking 05:57

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1 so I -- part of it cut off. 05:57

2 Q. Sure. 05:57

3 I'm asking -- let me mute my computer -- your 05:57

4 colleagues were e-mailing me. 05:57

5 The [REDACTED] 05:57

6 [REDACTED], you said that it's not GAIA keyed. 05:57

7 What do you mean by that? 05:58

8 A. I did not say that [REDACTED] 05:58

9 [REDACTED] mode is 05:58

10 not GAIA keyed. You had asked about [REDACTED] logs. 05:58

11 Q. Okay. Let me just then back it up. 05:58

12 On your information sheet, Notice 2, Topic 10, 05:58

13 there are -- there appear to be two field names or -- 05:58

14 let me back it up so we're speaking the same language. 05:58

15 What would you consider the [REDACTED] 05:58

16 [REDACTED] -- how -- 05:58

17 what -- how would someone at Google describe that? Is 05:58

18 it a field? Is it a field name? Is it a bit? I'm 05:59

19 trying to understand that. What's the jargon that 05:59

20 someone at Google would use to refer to those? 05:59

21 MR. ANSORGE: Objection. Compound. 05:59

22 THE WITNESS: I think there are many different 05:59

23 ways someone at Google might use to refer to those. 05:59

24 There is multiple jargon we could call it. 05:59

25 So I would say that [REDACTED] 05:59

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1 [REDACTED] mode is 05:59  
2 a binary field that is specifically used only in temp 05:59  
3 [REDACTED] logs. 05:59  
4 BY MR. MCGEE: 05:59  
5 Q. And why is it only in temp [REDACTED] logs? 05:59  
6 A. It was a field that was created by the [REDACTED] 06:00  
7 team to help them understand potential problems with 06:00  
8 their product location and where searching so that they 06:00  
9 could develop the best product possible for Google 06:00  
10 users. 06:00  
11 Q. Okay. And it -- there's a note here that it 06:00  
12 was introduced in 2017, but then the project wrapped up 06:00  
13 in June of 2018. 06:00  
14 Is that binary field still implemented at 06:00  
15 Google? 06:00  
16 MR. ANSORGE: Objection. Vague. 06:00  
17 THE WITNESS: That binary field is -- still 06:00  
18 exists as a binary field in and only in [REDACTED] logs. 06:00  
19 BY MR. MCGEE: 06:01  
20 Q. Are values written to that binary field in 06:01  
21 [REDACTED] logs? 06:01  
22 A. Yes. I believe values are written to that 06:01  
23 binary field in [REDACTED] logs. 06:01  
24 Q. So even though the project wrapped in June of 06:01  
25 2018, that is still an actively used binary field? 06:01

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1	MR. ANSORGE: Objection. Form.	06:01
2	THE WITNESS: As I understand it, it is not	06:01
3	actively used. It is still being written. It is not	06:01
4	being reviewed.	06:01
5	BY MR. MCGEE:	06:01
6	Q. Can you please clarify what you mean by "not	06:01
7	being reviewed"?	06:01
8	A. [REDACTED]	06:02
9	[REDACTED]	06:02
10	[REDACTED]	06:02
11	[REDACTED]	06:02
12	[REDACTED]	06:02
13	[REDACTED]	06:02
14	[REDACTED]	06:02
15	[REDACTED]	06:02
16	[REDACTED]	06:02
17	[REDACTED]	06:02
18	[REDACTED]	06:02
19	[REDACTED]	06:02
20	[REDACTED]	06:02
21	[REDACTED] [REDACTED]	06:03
22	[REDACTED]	06:03
23	[REDACTED]	06:03
24	[REDACTED]	06:03
25	[REDACTED]	06:03

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1 [REDACTED] 06:03

2 [REDACTED] 06:03

3 Q. But if they pulled up the graph, there would 06:03

4 be responsive data that would fill in the graph; 06:03

5 correct? 06:03

6 MR. ANSORGE: Objection. Vague, and calls for 06:03

7 a legal conclusion. 06:03

8 THE WITNESS: I don't know what you mean by 06:03

9 responsive data that would fill in the graph. 06:03

10 BY MR. MCGEE: 06:03

11 Q. Sure. 06:03

12 So you're saying they aren't looking at the 06:03

13 graph anymore. They're not reviewing it. 06:03

14 What I'm asking is: Is if they did pull up 06:04

15 the graph, the graph would still have lines or bars or 06:04

16 whatever visual representation or graphical 06:04

17 representation the graph was designed to display. 06:04

18 Is that fair? 06:04

19 MR. ANSORGE: Objection. Compound. Form. 06:04

20 THE WITNESS: My understanding is that [REDACTED] 06:04

21 [REDACTED] 06:04

22 [REDACTED] mode is a field that is being filled in in 06:04

23 [REDACTED] -- not [REDACTED] -- not in [REDACTED] logs. It is not in [REDACTED] 06:04

24 logs, to be clear. It is only in [REDACTED] logs. And it 06:04

25 is a field that is still being filled in in [REDACTED] logs 06:04

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1 today, despite the fact that the reason the field was 06:04  
2 introduced has passed. 06:04  
3 BY MR. MCGEE: 06:05  
4 Q. Okay. And from your fact sheet, the 06:05  
5 [REDACTED] 06:05  
6 [REDACTED] -- so without the underscore mode -- 06:05  
7 THE COURT REPORTER: I'm so sorry, Counsel. 06:05  
8 Can you start that question over? There was a little 06:05  
9 bit of feedback. I didn't get it. 06:05  
10 MR. MCGEE: Sure. 06:05  
11 BY MR. MCGEE:  
12 Q. So the -- you've got two bullet points in your 06:05  
13 fact sheet. 06:05  
14 One is the [REDACTED] 06:05  
15 [REDACTED], no GAIA. 06:05  
16 What does that mean? 06:05  
17 A. What that means is that the -- these [REDACTED] 06:05  
18 logs that have this field set are not GAIA keyed. [REDACTED] 06:05  
19 [REDACTED] [REDACTED] 06:05  
20 [REDACTED] [REDACTED] 06:06  
21 [REDACTED] 06:06  
22 [REDACTED] 06:06  
23 Q. Got it. 06:06  
24 A. And not -- notably not GAIA IDs. 06:06  
25 Q. Understood. 06:06

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1 And then in [REDACTED] 06:06

2 [REDACTED] there are either [REDACTED] 06:06

3 [REDACTED]? 06:06

4 A. To be clear -- 06:06

5 MR. ANSORGE: Objection. Form. 06:06

6 THE WITNESS: There are not [REDACTED] 06:06

7 [REDACTED] inside [REDACTED] 06:06

8 [REDACTED]. I believe that is the name of a 06:06

9 field that is in the logs listed on this reference sheet 06:07

10 below. Those logs have a [REDACTED] 06:07

11 in them, as well as this field. 06:07

12 BY MR. MCGEE: 06:07

13 Q. Do you know what other identifiers exist in 06:07

14 the GFS temp slash -- okay. Let me just -- I'm not even 06:07

15 going to read it out for you. 06:07

16 But what other identifiers exist in the first 06:07

17 sub-bullet point of the [REDACTED] 06:07

18 [REDACTED] list there? 06:07

19 MR. ANSORGE: Objection. Vague. Out of the 06:07

20 scope, and foundation. 06:07

21 THE WITNESS: I am not familiar with the full 06:07

22 set of things that is in this -- in that log. I can 06:07

23 tell you there is not an un-obfuscated GAIA ID. I can 06:08

24 also tell you that there is no direct mapping of this to 06:08

25 [REDACTED] So there is no [REDACTED] client ID or a way to somehow 06:08

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1 combine this with [REDACTED] data. 06:08

2 MR. MCGEE: I think we've been going for about 06:08

3 40 minutes now. I just need to take a break so -- 06:08

4 MR. ANSORGE: Yeah. I'm fine with that. 06:08

5 Could we get a time count as well? How much 06:08

6 time is left on the record? 06:08

7 THE VIDEOGRAPHER: Yeah. So off the record? 06:08

8 MR. MCGEE: Yes. Off the record. 06:08

9 THE VIDEOGRAPHER: Okay. We're now going off 06:08

10 the record. The time is 6:08 p.m. 06:08

11 (Break taken in proceedings.) 06:17

12 THE VIDEOGRAPHER: We are now back on the 06:17

13 record. The time is 6:18 p.m. 06:17

14 BY MR. MCGEE: 06:18

15 Q. Dr. Sadowski, for the bits that we were -- or 06:18

16 excuse me -- the binary fields that we were just talking 06:18

17 about, the [REDACTED] 06:18

18 [REDACTED] mode, [REDACTED] 06:18

19 [REDACTED], and 06:18

20 [REDACTED], do you know 06:18

21 what logic is being used to derive the values that are 06:18

22 stored in those binary fields? 06:18

23 MR. ANSORGE: Objection. Vague and compound. 06:18

24 THE WITNESS: I believe the [REDACTED] 06:18

25 [REDACTED] is referring 06:18

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1 to the same thing as [REDACTED] 06:18

2 [REDACTED] mode. I do know about 06:18

3 how that field is filled in. 06:19

4 BY MR. MCGEE: 06:19

5 Q. Okay. And what's the logic for filling in 06:19

6 that field? 06:19

7 A. It looks specifically at whether there is an 06:19

8 X-Client -- X hyphen Client hyphen Data header in the 06:19

9 request that is sent. 06:19

10 Q. Is there any other thing that it looks for or 06:19

11 is that all that it looks for? 06:19

12 A. I believe that is all that it looks for. The 06:19

13 [REDACTED] 06:19

14 [REDACTED] mode is if there is a X-Client-Data -- 06:19

15 X-Client-Data header sent, then that is the logic used 06:20

16 to set that to true. 06:20

17 This is a proxy for incognito, but it is not 06:20

18 a what I would call a reliable or accurate way to 06:20

19 determine incognito usage. 06:20

20 Q. Okay. And what's the -- what types of traffic 06:20

21 is this logic being applied to? Is it mobile traffic? 06:20

22 Is it -- you know, is it platform specific? 06:20

23 MR. ANSORGE: Objection. Vague and compound. 06:20

24 THE WITNESS: It is in [REDACTED] logs [REDACTED] 06:21

25 [REDACTED]. I believe it will be 06:21

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1 cross-platform, but I do not know for certain. I would 06:21  
2 have to investigate. 06:21  
3 BY MR. MCGEE:  
4 Q. Who would you speak with at Google to 06:21  
5 investigate that? 06:21  
6 A. I would speak again with Quentin Fiard if I 06:21  
7 had a question about the -- this particular field in 06:21  
8 Oolong logs. 06:21  
9 Q. Okay. And then I did this backwards but -- 06:21  
10 apologies. 06:21  
11 I can -- I've introduced two new exhibits. 06:21  
12 They're going to be 16 and 15. 06:22  
13 (Plaintiffs' Exhibits 15 and 16 06:22  
14 were marked for identification.) 06:22  
15 BY MR. MCGEE: 06:22  
16 Q. But I'd actually like you to look at 16 first. 06:22  
17 A. 16 first? Okay. I'm waiting for it to load. 06:22  
18 Q. Thank you. 06:22  
19 A. One other thing to answer your question. 06:22  
20 To the best of my knowledge the [REDACTED] 06:22  
21 [REDACTED] field is derived from the 06:22  
22 [REDACTED] 06:22  
23 [REDACTED] mode. It is still depending on X-Client-Data 06:22  
24 header logic and also looking at the user agent, but it 06:22  
25 is not derived through some other mechanism than 06:22

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1 presence or absence of X-Client-Data header, and 06:23  
2 suffers from the same limitations. 06:23  
3 Q. So for the [REDACTED] 06:23  
4 [REDACTED], does that look -- you 06:23  
5 mentioned user agent. 06:23  
6 Does that one look at user agent? 06:23  
7 A. To the best of my recollection, it does not. 06:23  
8 It is looking at whether there is an X-Client-Data 06:23  
9 header with the assumption that it would be coming from 06:23  
10 Chrome if that header shows up. That assumption could 06:23  
11 be false, but I would -- Chrome is the browser that use 06:23  
12 that header. 06:23  
13 Q. So then why does [REDACTED] 06:23  
14 [REDACTED] look at a user agent in addition to 06:23  
15 the X-Client-Data header? 06:24  
16 MR. ANSORGE: Objection. Vague. 06:24  
17 THE WITNESS: If you are looking at -- so if 06:24  
18 you have an X-Client-Data header, that implies that it's 06:24  
19 coming from Chrome. The absence of an X-Client-Data 06:24  
20 header does not -- in some kind of data sense does not 06:24  
21 have the same implication. 06:24  
22 BY MR. MCGEE: 06:24  
23 Q. Okay. 06:24  
24 A. Should I look at Exhibit 16? 06:24  
25 Q. Yes, please. Exhibit 16. 06:24

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1                   Actually --                   06:24

2           A.    There --                   06:25

3           Q.    -- I'm really sorry. Can you look at                   06:25

4   Exhibit 15, please?                   06:25

5           A.    Okay. I see a document at the top in blue it                   06:25

6   says "Document 338," and it starts with "In The                   06:25

7   United States District Court For The Northern District                   06:25

8   of California, San Jose Division."                   06:25

9           Q.    Have you ever seen this document before?                   06:25

10          A.    The preamble looks unfamiliar. I am scrolling                   06:25

11   down.                   06:25

12                   This document looks unfamiliar.                   06:26

13          Q.    Okay. Do you know who Andre Goleuke is,                   06:26

14   G-o-l-e-u-k-e? I apologize if I mispronounced that.                   06:26

15                   MR. ANSORGE: Objection. Out of the scope.                   06:26

16                   BY MR. MCGEE:                   06:26

17          Q.    You can answer.                   06:26

18          A.    No, I do not.                   06:26

19          Q.    Okay. If you'll turn to what was attached as                   06:26

20   Exhibit A.                   06:26

21                   The logs you identified under "Fact Sheet,"                   06:26

22   under "Notice 1, Topic 10," do any of those logs or data                   06:26

23   sources appear in Exhibit A, whether directly or by any                   06:26

24   other name?                   06:27

25                   MR. ANSORGE: Objection. Vague. Compound.                   06:27

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1 Foundation, and out of the scope. 06:27

2 THE WITNESS: I do not see those -- the -- 06:27

3 those particular strings in this document. I am not 06:27

4 familiar with many of the names in this document or how 06:27

5 it was generated. I just saw it. So I cannot answer 06:27

6 the "by any other" name parts. 06:27

7 But this document -- I do not see the word 06:27

8 [REDACTED] in this document, and the log sources you were 06:27

9 referencing were [REDACTED] logs. 06:28

10 BY MR. MCGEE: 06:28

11 Q. Okay. So by way of example, if we go to the 06:28

12 sixth page of the document itself -- there's eight 06:28

13 pages -- there's a [REDACTED] 06:28

14 That -- is there any possibility that the 06:28

15 first log source that's listed under the first bullet 06:28

16 point could be referred to as [REDACTED]? 06:28

17 MR. ANSORGE: Objection. Vague. 06:28

18 Mischaracterizes the evidence and foundation. And out 06:28

19 of scope. 06:28

20 BY MR. MCGEE: 06:28

21 Q. You can answer. 06:28

22 A. Your question was whether the specific strings 06:28

23 representing log sources listed in the reference sheet 06:29

24 would be referred to as [REDACTED]? 06:29

25 Q. By way of example. Sure. 06:29

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1 A. I would be very surprised. 06:29

2 Q. Okay. 06:29

3 A. If someone referred to those as [REDACTED], 06:29

4 I would expect someone to refer to them as [REDACTED] logs 06:29

5 or have the word [REDACTED] in the name. That is the name 06:29

6 used to refer to logs for that particular product and 06:29

7 they are only for [REDACTED]. 06:29

8 Q. Okay. And if I can draw your attention to 06:29

9 Exhibit 16. 06:29

10 A. But I'm not going to speculate what other 06:29

11 people could refer to something as. I would refer to 06:30

12 them as [REDACTED] logs, and would generally expect that 06:30

13 people would refer to them as [REDACTED] logs or with the 06:30

14 word [REDACTED] in the name. 06:30

15 I have a document that says "Contains 06:30

16 Information Designated 'Highly Confidential Attorneys' 06:30

17 Eyes Only'" as the -- in quotes as the top line and then 06:30

18 a lot of names. 06:30

19 Q. Okay. And I'm presenting it to you. There's 06:30

20 a lot of instructions. But on the sixth page of the 06:30

21 document, and it is a "6" at the bottom, there's a 06:30

22 topic. And I'd represent that this is the topic that 06:30

23 you were designated for but I don't believe -- 06:30

24 And there's a carve-out, and Mr. Ansorge -- or 06:30

25 excuse me -- Dr. Ansorge will describe the carve-out. 06:30

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1 But that you've been partially designated to 06:30  
2 testify on this topic. 06:31

3 And I apologize, the lights in my office went 06:31  
4 out. 06:31

5 MR. ANSORGE: Dr. Sadowski is designated for 06:31  
6 the [REDACTED] field, for 06:31  
7 the [REDACTED] field, 06:31  
8 and for the [REDACTED] 06:31  
9 field. She's not designated for the 06:31  
10 [REDACTED] field, nor for anything else 06:31  
11 that's covered by this topic, and all the questions that 06:31  
12 relate to [REDACTED] field or dashboard 06:31  
13 fields on that are out of the scope. 06:31

14 MR. MCGEE: Okay. But to be clear, Mr. -- 06:31  
15 Dr. -- I -- it's late. 06:31

16 Dr. Ansorge, it's -- part of the topic 06:31  
17 includes why Google developed, implemented, and used any 06:31  
18 such bit or field. Also includes the log or traffic 06:31  
19 sources, as well as the design used to determine the bit 06:32  
20 or field, as well as any logs or data sources where such 06:32  
21 a bit or field is used and how it is used. 06:32

22 So I understand she's not designated for 06:32  
23 [REDACTED], but for 06:32  
24 the other three, you're not limiting her testimony based 06:32  
25 on the further clarification of the topic, are you? 06:32

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1 MR. ANSORGE: For the other three, she's 06:32  
2 already testified as to the development, the 06:32  
3 implementation, the use of bits and fields. We've gone 06:32  
4 over those. 06:32  
5 MR. MCGEE: Understood. Just making sure 06:32  
6 we're clear. 06:32  
7 I see. Okay. 06:33  
8 And -- okay. I see what you're saying. 06:33  
9 So Notice 2, Topic 10 has overlap with 06:33  
10 Notice 4, Topic 1, is what you're saying, Dr. Ansorge? 06:33  
11 MR. ANSORGE: I'm not sure it's Notice 4, 06:33  
12 Topic 1, that that's a specific exhibit you're referring 06:33  
13 to. 06:33  
14 MR. MCGEE: Exhibit 16. Sure. 06:33  
15 MR. ANSORGE: Dr. Sadowski already testified 06:33  
16 as to each of those three fields. 06:33  
17 MR. MCGEE: Right. 06:33  
18 BY MR. MCGEE: 06:33  
19 Q. So, Dr. Sadowski, I understand that in the 06:33  
20 beginning we spoke about this, but the -- you used an 06:33  
21 internal code search tool to look for [REDACTED] 06:33  
22 [REDACTED]. That returned no results 06:33  
23 but that tool did not search all data sources for 06:34  
24 Google; correct? 06:34  
25 MR. ANSORGE: Objection. Mischaracterizes 06:34

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1 prior testimony. 06:34

2 THE WITNESS: I searched on our internal code 06:34

3 search tool over the multibillion line repository that 06:34

4 is viewable to me internally, and did not see that field 06:34

5 in the history of the repository. 06:34

6 BY MR. MCGEE: 06:34

7 Q. Okay. And then the same thing for [REDACTED] 06:34

8 [REDACTED]? 06:34

9 A. If you search for [REDACTED] 06:34

10 [REDACTED] in the internal code search 06:34

11 and browsing tool over the multibillion line repository 06:34

12 that's visible to me, when I did that, I got hits for 06:35

13 [REDACTED] 06:35

14 [REDACTED] mode. 06:35

15 Q. Okay. Did you do any other searches for 06:35

16 fields or bits that would contain the term "incognito"? 06:35

17 A. No. 06:35

18 MR. ANSORGE: Objection. Vague. 06:35

19 BY MR. MCGEE: 06:35

20 Q. Did you do any other research or speak with 06:35

21 anyone at Google to determine whether any such fields 06:35

22 were developed whose function was intended to detect 06:35

23 incognito usage? 06:35

24 MR. ANSORGE: Objection. Vague and out of 06:35

25 the scope. 06:35

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1 THE WITNESS: The only accurate way I know 06:36  
2 about to report incognito usage statistics is through 06:36  
3 [REDACTED] because [REDACTED] is so privacy preserving that we can 06:36  
4 report statistics about incognito usage. We do not have 06:36  
5 other ways that we generate statistics -- accurate 06:36  
6 statistics about incognito usage. 06:36

7 BY MR. MCGEE: 04:15

8 Q. Right. 04:15

9 A. There is one proxy, this -- using the 06:36  
10 X-Client-Data header that's -- we have talked about the 06:36  
11 [REDACTED] team used, but that is -- I would not 06:36  
12 characterize that as a reliable way to look at 06:36  
13 incognito usage statistics. 06:36

14 If someone asked me how to look at incognito 06:36  
15 usage statistics, I would say the ways through [REDACTED] and 06:36  
16 the metrics are visible in the external open source 06:36  
17 chromium repository for full transparency. 06:37

18 Q. Okay. And did you do any further research to 06:37  
19 see if any other fields can -- ever containing the word 06:37  
20 "incognito" were implemented by Google, aside from the 06:37  
21 four that are in this document and that you've 06:37  
22 previously described? 06:37

23 MR. ANSORGE: Objection. Vague, and out of 06:37  
24 the scope. 06:37

25 THE WITNESS: I did not do research on whether 06:37

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1       there are fields in some protocol buffer at Google that       06:37  
2       use the word "incognito." That is an English word that       06:37  
3       could have multiple meanings and could be used in       06:37  
4       arbitrary ways by arbitrary people at Google.       06:37

5       BY MR. MCGEE:       06:37

6           Q.     Okay. And did you do any research to see if       06:38  
7       any such bit or field containing the word "incognito" is       06:38  
8       being used at Google, other than what you've testified       06:38  
9       to today?       06:38

10           MR. ANSORGE: Objection. Out of the scope.       06:38  
11       Form. And asked and answered.       06:38

12           THE WITNESS: I believe I already answered       06:38  
13       that. I did not do extra research about fields in       06:38  
14       protocol buffers related to incognito beyond what we       06:38  
15       have talked about today.       06:38

16       BY MR. MCGEE:       06:38

17           Q.     Okay. Who at Google is responsible for       06:38  
18       maintaining the [REDACTED] dashboards?       06:38

19           MR. ANSORGE: Objection. Vague, and out of       06:38  
20       scope.       06:38

21           THE WITNESS: My team.       06:38

22       BY MR. MCGEE:       06:39

23           Q.     I'm sorry. You said your team?       06:39

24           A.     My -- I manage the Chrome metrics team which       06:39  
25       owns [REDACTED] infrastructure, including the dashboards.       06:39

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1 Q. Okay. And who are those dashboards accessible 06:39  
2 by at Google? 06:39  
3 MR. ANSORGE: Objection. Vague. 06:39  
4 THE WITNESS: The [REDACTED] dashboards are generally 06:39  
5 available to engineers at Google. Generally viewable by 06:39  
6 engineers at Google. 06:39  
7 BY MR. MCGEE:  
8 Q. For the -- going back to Exhibit No. 2, your 06:40  
9 fact sheet, how did you determine for the Zwieback 06:40  
10 logs -- how did you determine that those were the [REDACTED] 06:40  
11 responsive logs that contain that binary field? 06:40  
12 A. What do you mean by Zwieback logs? Zwieback 06:40  
13 is a type of ID, not a type of log. 06:40  
14 Q. Right. 06:40  
15 The [REDACTED] 06:40  
16 and that it would -- [REDACTED] and 06:40  
17 then you list [REDACTED] logs; right? 06:41  
18 How did you determine a -- how was that list 06:41  
19 created? How were those logs identified? 06:41  
20 A. By asking Quentin Fiard. 06:41  
21 If you're asking where did these bullet points 06:41  
22 come from, he's the person that I talked to that knows 06:41  
23 about [REDACTED] logs. 06:41  
24 Q. Okay. And did he explain how he populated 06:41  
25 that list? 06:41

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1 MR. ANSORGE: Objection. Vague. 06:41

2 THE WITNESS: Populated what list? 06:42

3 BY MR. MCGEE: 06:42

4 Q. The [REDACTED] log sources that are on that list, did 06:42

5 he explain how he identified those? Or did you just 06:42

6 take his word for it? 06:42

7 MR. ANSORGE: Objection. Compound, and 06:42

8 argumentative. 06:42

9 THE WITNESS: I asked him about the -- what 06:42

10 logs were stored in [REDACTED] and what their retention 06:42

11 periods were, and he came back with this list. 06:42

12 BY MR. MCGEE: 06:42

13 Q. When you did the internal code search for all 06:43

14 of these binary fields that we've identified in both 06:43

15 Notice 2, Topic 10, and then the other notice, did you 06:43

16 save the results of your queries? 06:43

17 A. No. 06:43

18 Q. Why not? 06:43

19 A. Because the way code search works, you search 06:43

20 for something, similar to Google search, you don't save 06:43

21 the results of your search if you are just looking up 06:43

22 a -- a stat -- like if you're looking if for definition 06:43

23 of a word or doing some math. 06:43

24 Q. But I can .pdf the results of a Google search; 06:43

25 right? 06:43

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1 MR. ANSORGE: Objection. Form, and out of the 06:43  
2 scope. 06:44

3 THE WITNESS: When developers look at or 06:44  
4 browse source code, they use the code search tool. They 06:44  
5 do not save a copy of that tool on the side. That is an 06:44  
6 internally available code search tool. You generally 06:44  
7 shouldn't print out or save any kind of source code on 06:44  
8 your local machine. 06:44

9 So the way that you would view source code is 06:44  
10 through the code search tool. You don't save a copy of 06:44  
11 your results. You search for results afresh if you want 06:44  
12 to see them again. 06:44

13 BY MR. MCGEE: 06:44

14 Q. Okay. When you -- did you use the internal 06:44  
15 code search tool to search for the [REDACTED] 06:44  
16 [REDACTED]? 06:45

17 A. I looked up [REDACTED] 06:45  
18 [REDACTED], [REDACTED], 06:45  
19 and [REDACTED] 06:45  
20 [REDACTED] mode, and that returns the same 06:45  
21 set of results as [REDACTED] 06:45  
22 [REDACTED]. 06:45

23 Q. Okay. But -- sorry. To be clear, did you run 06:46  
24 [REDACTED] through the 06:46  
25 internal code search tool? 06:46

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1 A. No. 06:46

2 Q. But you did run the other one. And is that 06:46

3 how the list of log sources was populated in this 06:46

4 Exhibit 2 for Notice 2, Topic 10? 06:46

5 A. The way that the -- 06:46

6 MR. ANSORGE: Objection. Vague. 06:46

7 THE WITNESS: The list -- the bulleted list in 06:46

8 Notice 2, Topic 10 were populated by Quentin Fiard. 06:46

9 BY MR. MCGEE:

10 Q. Okay. But when you ran the [REDACTED] 06:46

11 [REDACTED] -- when you ran [REDACTED] -- you 06:46

12 did -- let me ask it this way: 06:47

13 You did a lot of -- or you did a few internal 06:47

14 code search queries; right? 06:47

15 A. Yes. 06:47

16 I would also like to note that in the course 06:47

17 of my job, I frequently run internal code search 06:47

18 queries. 06:47

19 Q. Okay. 06:47

20 A. I did a couple code search queries in 06:47

21 preparation for this case, either yesterday or this 06:47

22 morning. It has blended together and I'm not sure 06:47

23 which. But I make queries in code search in the normal 06:47

24 course of my job. 06:47

25 Q. Okay. And one of those queries returned 06:48

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1 results; right? 06:48

2 A. Yes. If you search for [REDACTED] 06:48

3 [REDACTED], that substring is part of a 06:48

4 name of a Boolean field in [REDACTED] logs that I have 06:48

5 already testified about. And that binary field is using 06:48

6 X-Client-Data header information to proxy incognito 06:48

7 states. It is not an accurate name for the binary 06:48

8 field, and it is not used in [REDACTED] logs. 06:49

9 Q. Okay. I think I am -- very close. Just want 06:49  
10 to make sure. 06:49

11 Does the [REDACTED] 06:49

12 [REDACTED] mode bit exist in 06:49

13 non-[REDACTED] logs? 06:49

14 A. To the best of my knowledge, that is the only 06:49

15 place it exists. If you -- this particular binary field 06:49

16 was developed with -- in -- as part of the design doc 06:50

17 that we reviewed earlier so that the [REDACTED] team could 06:50

18 look at how often they don't get a location header when 06:50

19 they're expecting to get a location header using the 06:50

20 presence -- or using the presence of the X-Client -- 06:50

21 presence or absence of the X-Client-Data header as a 06:50

22 proxy here for situations when you would or wouldn't 06:50

23 expect to get a location header. 06:50

24 Q. I understand that. 06:50

25 A. And that is the only way it is being used, to 06:50

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1 my knowledge. 06:50

2 Q. And what is the basis of your knowledge for -- 06:50

3 what's the basis of your knowledge for that conclusion? 06:50

4 A. A few different things. 06:51

5 Talking to Quentin Fiard who was involved in 06:51

6 actually implementing this field. 06:51

7 Looking in code search, including historical 06:51

8 code search, for where this field is set and used. 06:51

9 And also if you look in the protocol buffer 06:51

10 that has this field, there is an annotation saying that 06:51

11 it is specifically only used in [REDACTED] logs. 06:51

12 And that there's also a comment that links to 06:51

13 the design doc that we talked about earlier that is 06:51

14 related to this field. 06:51

15 Q. And that comment is on an internal document at 06:51

16 Google? 06:51

17 A. It is a source code comment. 06:51

18 Q. Okay. 06:52

19 A. Not a document comment. And it is a comment 06:52

20 directly above the definition of this field. 06:52

21 MR. MCGEE: Okay. I don't have any further 06:52

22 questions. 06:52

23 Thank you. 06:52

24 MR. ANSORGE: We'd like to take a break to see 06:52

25 if we have any questions. 06:52

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1 Five minutes okay, Mr. McGee? 06:52

2 MR. MCGEE: As long as you need. We can go 06:53

3 off. 06:53

4 MR. ANSORGE: All right. We'll go off the 06:53

5 record. 06:53

6 THE VIDEOGRAPHER: We are now going off the 06:53

7 record. The time is 6:53 p.m. 06:53

8 (Break taken in proceedings.) 06:53

9 THE VIDEOGRAPHER: We are now back on the 07:01

10 record. The time is 7:01 p.m. 07:01

11 MR. ANSORGE: Dr. Sadowski, thank you for your 07:01

12 patience and grace today. No questions from us. We're 07:01

13 happy to close the deposition at this time. 07:01

14 Mr. McGee, should we go off the record? 07:01

15 MR. MCGEE: Yeah. We can go off. But before 07:01

16 we go off, I guess I would like to note Google has 07:01

17 continued production of documents after the March 4th 07:01

18 deadline for document production, so I won't be closing 07:01

19 this deposition. But we can argue about that, 07:01

20 Dr. Ansorge, later. 07:02

21 MR. ANSORGE: Yeah. We can let Dr. Sadowski 07:02

22 get to her kids and we can argue about that, you know, 07:02

23 before and after our further brush of meet and confers. 07:02

24 MR. MCGEE: Yeah. 07:02

25 MR. ANSORGE: Okay. So with that, we can go 07:02

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1 off the record. 07:02

2 MR. MCGEE: Yes. 07:02

3 THE VIDEOGRAPHER: Conclusion of depo? 07:02

4 We are now going off the record. The time is 07:02

5 7:02 p.m. and this concludes today's testimony given by 07:02

6 Caitlin Sadowski. The total number of media units used 07:02

7 was seven, and will be retained by Veritext Legal 07:02

8 Solutions. 07:02

9 (Whereupon, the deposition adjourned at 7:02 p.m.)

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